

इंटरनेट

मानक

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Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 1995 (1984): Overall internal heights for lathe tool posts [PGD 2: Machine Tool Elements and Holding Devices]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

(Reaffirmed 2005)



OVERALL INTERNAL HEIGHTS FOR LATHE TOOL POSTS

(First Revision)

(ISO Title : Machine Tools — Lathe Tool Posts — Overall
Internal Height)

National Foreword

This Indian Standard which is identical with ISO 213-1982 ' Machine tools — Lathe tool posts — overall internal height ', issued by the International Organization for Standardization (ISO), was adopted by the Indian Standards Institution on the recommendation of the Machine Tools, Machine Tool Elements and Woodworking Machines Sectional Committee and approved by the Mechanical Engineering Division Council.

This standard was first issued in 1962 by endorsement of the draft ISO recommendation ISO R/213-1961 ' Lathe tool posts (overall internal height)'. Consequent upon publication of ISO 213-1982, this standard has been revised by adopting ISO 213-1982 to bring it in line with International Standard.

Comma (,) has been used as a decimal marker while in Indian Standards the current practice is to use a point (.) as the decimal marker.

Wherever the words 'International Standard' appear, referring to this standard, they should be read as 'Indian Standard'.

Adopted 30 October 1984

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1 Scope and field of application

This International Standard lays down overall internal heights of lathe tool posts, from the horizontal level of the lathe axis.

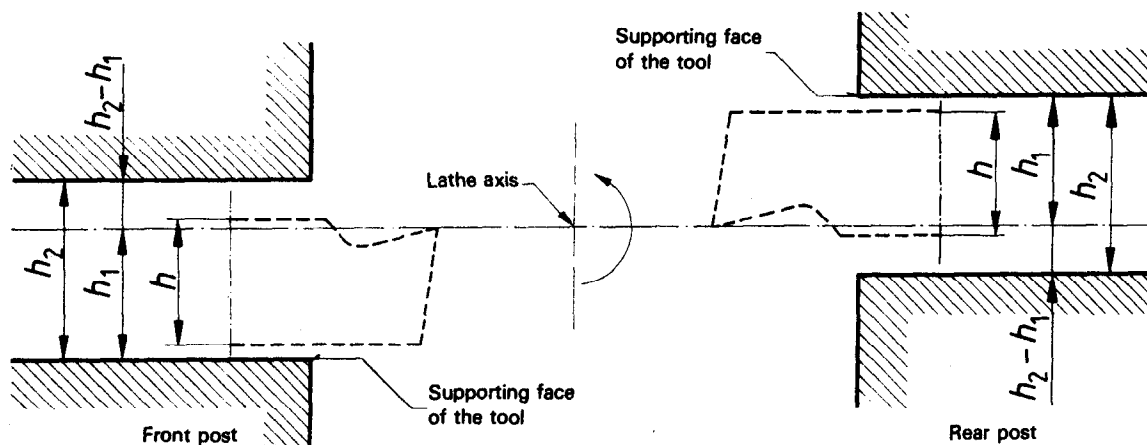
2 Sizes

2.1 The overall internal heights are fixed, from the horizontal level of the lathe axis, in terms of height h of the strongest standardized tool suitable for the full power of the lathe.

2.2 These sizes are given in millimetres, and in inches for countries using the imperial system of units, and were determined so as to ensure complete interchangeability of posts and tools.

In order to fulfil this condition, height h_1 (distance in height from supporting face of the tool in relation to the horizontal level of the lathe axis) was taken slightly greater than height h of the tool, that is, approximately $1,1 h$.

The overall internal height h_2 was taken greater than height h_1 by about $0,5 h$, so as to leave a sufficient margin for using the tool after a certain number of resharpenings had reduced the height of the edge above the base of this tool.



Figure

2.3 The above-mentioned specifications are valid for the rear post as well as for the front post, on the assumption of the most general case, when the edge of the new tool is on the same level as the upper face of the tool.

An alternative provides for the case when the lathe would be designed more specially to use, in the rear post, a "gooseneck" tool, the edge of which, when new, is clearly below the upper face of the tool; in this case, as height h_1 remains unchanged,

the total overall height h_2 has to be increased by about $0,4 h$, in order to leave a sufficient wear margin for the "gooseneck" tool.

2.4 Allowing for the height h of the strongest standardized tool suitable for the full power of the lathe, the values in the following tables should be adopted for overall internal height of tool posts.

Table

Height of the strongest admissible tool h		Distance in height from supporting face of the tool (in relation to the horizontal level of the lathe tool) h_1		Distance in height from the face opposite the supporting face of the tool (in relation to the horizontal level of the lathe tool) $h_2 - h_1$	
mm	in	mm	in	mm	in
6	1/4	7	9/32	3	1/8
8	5/16	9	11/32	3,5	5/32
10	3/8	11	7/16	5	3/16
12	1/2	14	9/16	6	1/4
16	5/8	18	11/16	7	5/16
20	3/4	22	7/8	10	3/8
25	1	28	1 1/8	12	1/2
32	1 1/4	36	1 3/8	14	5/8
40	1 1/2	45	1 3/4	18	3/4
50	2	56	2 1/8	24	1

All the tolerances are positives for both sizes h_1 and $h_2 - h_1$.

Alternatives

1 The sizes for the first three posts may still be considered as admissible if, while the dimension $h_2 - h_1$ remains unchanged, the size h_1 is reduced to the following minimum values :

$$\text{for } h = 6 \text{ mm or } 1/4 \text{ in, } h_1 = 6,35 \text{ mm} = 0.250 \text{ in}$$

$$\text{for } h = 8 \text{ mm or } 5/16 \text{ in, } h_1 = 8 \text{ mm} = 0.315 \text{ in}$$

$$\text{for } h = 10 \text{ mm or } 3/8 \text{ in, } h_1 = 10 \text{ mm} = 0.394 \text{ in}$$

2 In the special case where the rear post is designed specifically to be fitted with "gooseneck" tools, the overall height h_2 could be about $2 h$ instead of the value resulting from the table.